P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY
Route: SKIN APPLICATION

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Species/Strain: Rat/F 344/N

CAS Number: 35691-65-7 First Dos

C Number: C97003C

Lock Date: 10/27/2000

Cage Range: All

Date Range: All

Reasons For Removal:

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

PWG Approval Date NONE

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:29

First Dose M/F: NA / NA

Lab: MBA

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY **Route: SKIN APPLICATION** Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:29

First Dose M/F: NA / NA

Lab: MBA

Species/Strain: Rat/F 344/N

F 344/N Rat Male
VEHICLE CONTROL

F 344/N Rat Male VEHICLE CONTROL	DAY ON TEST ANIMAL ID	0 9 3 0 0 0 0	0 9 3 0 0 0 0 2	0 0 9 3 0 0 0 3	0 9 3 0 0 0 0 4	0 9 3 0 0 0 0 5	0 9 3 0 0 0 0 6	0 9 3 0 0 0 0 7	0 9 3 0 0 0 0 8	0 9 3 0 0 0 0	0 0 9 3 0 0 1 0	*TOTALS
Alimentary System		<u>'</u>		<u>J</u>	-			,	_ 0	_ 3_		TOTALO
Esophagus		+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum		+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon		+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum		+	+	+	+	+	+	+	+	+	+	10
Liver		+	+	+	+	+	+	+	+	+	+	10
Pancreas		+	+	+	+	+	+	+	+	+	+	10
Salivary Glands		+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	10
Cardiovascular System												
Blood Vessel		+	+	+	+	+	+	+	+	+	+	10
Heart		+	+	+	+	+	+	+	+	+	+	10
Endocrine System												
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	10
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	10

Parathyroid Gland

M .. Missing tissue

8

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N **CAS Number:** 35691-65-7

F;	344/N	Rat	Male	

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
F 344/N Rat Male		0	0	0	0	0	0	0	0	0	0	
		<i>9 3</i>	9	<i>9 3</i>	<i>9</i> 3	9	9	<i>9 3</i>	9	9	9	
VEHICLE CONTROL		0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	0	ő	Ö	ő	ő	0	ő	ő	ő	ő	
		0	0	0	0	0	0	0	0	0	0	
		0 1	0 2	0 3	0	0 5	0 6	0 7	0 8	9	0	*TOTALS
Pituitary Gland		+	+	+	М	+	+	+	+	+	+	9
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	10
General Body System												
NONE												
Genital System												
Epididymis		+	+	+	+	+	+	+	+	+	+	10
Preputial Gland		+	+	+	+	+	+	+	+	+	+	10
Prostate		+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	10
Testes		+	+	+	+	+	+	+	+	+	+	10
Hematopoietic System												
Bone Marrow		+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular		М	M	M	M	M	М	M	М	M	М	0
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	10
Spleen		+	+	+	+	+	+	+	+	+	+	10
Thymus		+	+	+	+	+	+	+	+	+	+	10
Integumentary System												
Mammary Gland		М	+	М	М	М	+	+	+	М	М	4
Skin		+	I	+	+	+	+	+	+	+	+	9

Musculoskeletal System

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N

Test Type: 90-DAY

	r											
D	AY ON TEST	0	0	0	0	0	0	0	0	0	0	
F 344/N Rat Male		0	0	0	0	0	0	0	0	0	0	
		9 3	<i>9 3</i>	9 3	<i>9 3</i>	9						
VEHICLE CONTROL	•	0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	0	0	0	ő	ő	ő	0	0	ŏ	0	
		0	0	0	0	0	0	0	Ŏ	0	0	
		0 1	0	0	0	ō	0	0 7	0	0	1	*TOTALS
Dana		•	2	3	4	5	6	-	8	9	0	
Bone		+	+	+	+	+	+	+	+	+	+	10
Nervous System												
Brain		+	+	+	+	+	+	+	+	+	+	10
Respiratory System												
Lung		+	+	+	+	+	+	+	+	+	+	10
Alveolar/Bronchiolar Adenoma										Χ		1
Nose		+	+	+	+	+	+	+	+	+	+	10
Trachea		+	+	+	+	+	+	+	+	+	+	10
Special Senses System												
Eye		+	+	+	+	+	+	+	+	+	+	10
Urinary System												
Kidney		+	+	+	+	+	+	+	+	+	+	10
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	10
SYSTEMIC LESIONS												
Multiple Organ		+	+	+	+	+	+	+	+	+	+	10

M ..Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

F 344/N Rat Male 0.2 MG/KG

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

CAS Number: 35691-65-7

Species/Strain: Rat/F 344/N

Lab: MBA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
	3	3	3	3	3	3	3	3	3	3	
A N II N A A I . I D	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	2	
	1	2	3	4	5	6	7	8	9	0	*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin + + + + + + + + + + 10

Musculoskeletal System

NONE

Nervous System

NONE

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Species/Strain: Rat/F 344/N

F 344/N Rat Male

MG/KG

DAY ON TEST 3 0 0 1 2 0 0 1 5 0 0 1 8 ANIMAL ID Õ

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

F 344/N Rat Male 0.6 MG/KG

CAS Number: 35691-65-7

Species/Strain: Rat/F 344/N

Lab: MBA

First Dose M/F: NA / NA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
AMIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	2	3
	1	2	3	4	5	6	7	R	g	0

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin + + + + + + + + + + 10

Musculoskeletal System

NONE

Nervous System

NONE

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane CAS Number: 35691-65-7

Route: SKIN APPLICATION

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Species/Strain: Rat/F 344/N

F 344/N Rat Male MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIIMAA ID	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	2	3
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 10

X ..Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

Test Type: 90-DAY

CAS Number: 35691-65-7

First Dose M/F: NA / NA Lab: MBA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

Species/Strain: Rat/F 344/N

F 344/N Rat Male MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIIMAL ID	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	3	3	3	3	3	3	3	3	3	4
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin 10

Musculoskeletal System

NONE

Nervous System

NONE

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N **CAS Number:** 35691-65-7

First Dose M/F: NA / NA Lab: MBA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

F 344/N Rat Male 2.0 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
VIIIVIVI ID	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	3	3	3	3	3	3	3	3	3	4
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ + + + + + + + + + + 10

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

Experiment Number: 97003-05 P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Type: 90-DAY **Test Compound:** 1,2-Dibromo-2,4-dicyanobutane **Route: SKIN APPLICATION** CAS Number: 35691-65-7 Species/Strain: Rat/F 344/N DAY ON TEST F 344/N Rat Male 3 MG/KG 0 0 4 2 ANIMAL ID Õ Ō 0 4 8 4 1 5 3 *TOTALS **Alimentary System** Liver Cardiovascular System NONE **Endocrine System** NONE **General Body System** NONE **Genital System**

NONE

Hematopoietic System

NONE

Integumentary System

Skin + + + + + + + + + + + + + + 10
Skin, Control + 1

Musculoskeletal System

NONE

Nervous System

M .. Missing tissue

A .. Autolysis precludes evaluation

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

Experiment Number: 97003-05 P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Type: 90-DAY Test Compound: 1,2-Dibromo-2,4-dicyanobutane CAS Number: 35691-65-7 **Route: SKIN APPLICATION** Species/Strain: Rat/F 344/N DAY ON TEST F 344/N Rat Male 3 MG/KG 0 0 4 2 0 0 4 5 0 0 4 8 ANIMAL ID Ö Õ 4 1 3 *TOTALS NONE

Respiratory System

NONE

Special Senses System

Eye + 1

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ + + + + + + + + + + + 10

M ..Missing tissue

A .. Autolysis precludes evaluation

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I ..Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Species/Strain: Rat/F 344/N

F 344/	N Rat	Male
18.0	MG/K	(G

Alimentary System

Intestine Large, Cecum Intestine Large, Colon Intestine Large, Rectum Intestine Small, Duodenum Intestine Small, Ileum Intestine Small, Jejunum

Esophagus

Liver
Pancreas
Salivary Glands
Stomach, Forestomach
Stomach, Glandular
Cardiovascular System

Blood Vessel Heart

Endocrine System

Adrenal Cortex

Adrenal Medulla

Islets, Pancreatic Parathyroid Gland

	DAY ON TEST	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	
	ANIMAL ID	3 0 0 0										
		5 1	5 2	5 3	5 4	5 5	5 6	5 7	5 8	59	60	*TOTALS
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
1		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10
		+	+	+	+	+	+	+	+	+	+	10

M ..Missing tissue

10

8 10

9

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

CAS Number: 35691-65-7

F 344/N Rat Male 18.0 MG/KG	DAY ON TEST ANIMAL ID	0 9 3 0 0 0 5	0 9 3 0 0 0 0 6									
		1	2	3	4	5	6	5 7	8	9	Ŏ	*TOTALS
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	10
General Body System												
NONE												
Genital System												
Epididymis		+	+	+	+	+	+	+	+	+	+	10
Preputial Gland		+	+	М	+	М	+	+	+	+	+	8
Prostate		+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	10
Testes		+	+	+	+	+	+	+	+	+	+	10
Hematopoietic System												
Bone Marrow		+	+	+	+	+	+	+	+	+	+	10
Lymph Node					+							1
Lymph Node, Mandibular		M	М	M	M	M	M	M	M	M	M	0
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	10
Spleen		+	+	+	+	+	+	+	+	+	+	10
Thymus		+	+	+	+	+	+	+	+	+	+	10
Integumentary System												
Mammary Gland		М	+	М	+	М	+	М	+	М	М	4
Skin		+	+	+	+	+	+	+	+	+	+	10

Skin, Control

M ..Missing tissue

4

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N CAS Number: 35691-65-7

F 344/N Rat Male 18.0 MG/KG	ANIMAL ID	0 9 3 0 0 0	0 9 3 0 0									
		5 1	5 2	5 3	5 4	5 5	5 6	5 7	5 8	5 9	6	*TOTALS
Skin, Control							+		+	+	+	4
Musculoskeletal System												
Bone		+	+	+	+	+	+	+	+	+	+	10
Nervous System												
Brain		+	+	+	+	+	+	+	+	+	+	10
Respiratory System												
Lung		+	+	+	+	+	+	+	+	+	+	10
Nose		+	+	+	+	+	+	+	+	+	+	10

DAY ON TEST 0 0 0 0 0 0 0 0 0 0

Trachea

Urinary System

Urinary Bladder

Multiple Organ

SYSTEMIC LESIONS

Kidney

Eye

Special Senses System

M .. Missing tissue

10

10

10

10

10

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male CONTROL SPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I ..Insufficient tissue

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male CONTROL SPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 0.2MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

DAY ON TEST

F 344/N Rat Male 0.2MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 0.6MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 0.6MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 2.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I ..Insufficient tissue

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 2.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I ..Insufficient tissue

M ..Missing tissueA ..Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 6.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 6.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

M ..Missing tissue
A ..Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I ..Insufficient tissue

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Male 18MG/KG SPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I ..Insufficient tissue

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

DAY ON TEST

F 344/N Rat Male 18MG/KG SPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

0 Multiple Organ

END OF MALE DATA

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY **Route: SKIN APPLICATION**

Species/Strain: Rat/F 344/N

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Female **VEHICLE CONTROL**

Intestine Large, Cecum Intestine Large, Colon Intestine Large, Rectum Intestine Small, Duodenum Intestine Small, Ileum Intestine Small, Jejunum

Alimentary System

Esophagus

Liver **Pancreas** Salivary Glands Stomach, Forestomach Stomach, Glandular **Cardiovascular System**

Blood Vessel

Endocrine System Adrenal Cortex

Adrenal Medulla

Islets, Pancreatic

Parathyroid Gland

Heart

DAY ON TEST	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	<i>9</i> <i>3</i>	<i>9 3</i>	<i>9 3</i>	<i>9 3</i>	<i>9 3</i>	9	9	<i>9 3</i>	9	9		
						3	3		3	3		
ANIMAL ID	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	Ö	Ö	0		
	6	6	6	6	6 5	6	6	6	6	7		
	1	2	3	4	5	6	7	8	9	0	*TOTALS	
	+	+	+	+	+	+	+	+	+	+	10	
	+	+	+	+	+	Α	+	+	+	+	9	
	+	+	+	+	+	+	+	+	+	+	10	
	+	+	+	+	+	Α	+	+	+	+	9	
	+	+	+	+	+	+	+	+	+	+	10	
	+	+	+	+	+	Α	+	+	+	+	9	
	+	+	+	+	+	Α	+	+	+	+	9	
	+	+	+	+	+	+	+	+	+	+	10	
	+	+	+	+	+	+	+	+	+	+	10	
	+	+	+	+	+	+	+	+	+	+	10	
	+	+	+	+	+	+	+	+	+	+	10	
	+	+	+	+	+	+	+	+	+	+	10	

DAY ON TEST A A A A A A A A A

M .. Missing tissue

10

10

10

10

10

10

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N **CAS Number:** 35691-65-7

F 344/N Rat Female VEHICLE CONTROL	DAY ON TEST ANIMAL ID	0 9 3 0 0 0 6 1	0 9 3 0 0 0 6 2	0 9 3 0 0 0 6 3	0 9 3 0 0 0 6 4	0 9 3 0 0 0 6 5	0 9 3 0 0 0 6 6	0 9 3 0 0 0 6 7	0 9 3 0 0 0 6 8	0 9 3 0 0 0 6 9	0 9 3 0 0 0 7 0	*TOTALS
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	10
General Body System												
NONE Genital System												
Clitoral Gland		М	+	+	+	+	+	+	+	М	+	8
Ovary		+	+	+	+	+	+	+	+	+	+	10
Uterus		+	+	+	+	+	+	+	+	+	+	10
Hematopoietic System												
Bone Marrow		+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular		М	М	+	М	М	М	М	М	М	М	1
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	10
Spleen		+	+	+	+	+	+	+	+	+	+	10
Thymus		+	+	+	+	+	+	+	+	+	+	10
Integumentary System												
Mammary Gland		+	+	+	+	+	+	+	+	+	+	10
Skin		+	+	+	+	+	+	+	+	+	+	10
Musculoskeletal System												

Bone

M ..Missing tissue

10

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..}Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

Route: SKIN APPLICATION

CAS Number: 35691-65-7

Species/Strain: Rat/F 344/N

F 344/N Rat Female VEHICLE CONTROL	DAY ON TEST ANIMAL ID	0 9 3 0 0 0 6 1	0 9 3 0 0 0 6 2	0 9 3 0 0 0 6 3	0 9 3 0 0 0 6 4	0 9 3 0 0 0 6 5	0 9 3 0 0 0 6 6	0 9 3 0 0 0 6 7	0 9 3 0 0 0 6 8	0 9 3 0 0 0 6 9	0 9 3 0 0 0 7 0	*TOTALS
Nervous System												
Brain		+	+	+	+	+	+	+	+	+	+	10
Respiratory System												
Lung		+	+	+	+	+	+	+	+	+	+	10
Nose		+	+	+	+	+	+	+	+	+	+	10
Trachea		+	+	+	+	+	+	+	+	+	+	10
Special Senses System												
Eye		+	+	+	+	+	+	+	+	+	+	10
Urinary System												
Kidney		+	+	+	+	+	+	+	+	+	+	10
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	10
SYSTEMIC LESIONS												
Multiple Organ		+	+	+	+	+	+	+	+	+	+	10

M ..Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..}Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

Experiment Number: 97003-05 P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Type: 90-DAY **Test Compound:** 1,2-Dibromo-2,4-dicyanobutane **Route: SKIN APPLICATION** CAS Number: 35691-65-7 Species/Strain: Rat/F 344/N DAY ON TEST 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 F 344/N Rat Female 9 3 9 9 9 9 9 9 9 9 3 3 3 3 3 3 3 3 3 MG/KG 0 0 0 0 0 0 0 0 0 0 7 2 0 0 0 7 8 0 ANIMAL ID Õ Ō 0 0 0 7 5 0 0 0 0 7 0 7 9 0 7 0 0 0 0 7 6 7 7 7 8 *TOTALS **Alimentary System** Mesentery 1 Cardiovascular System NONE **Endocrine System** NONE **General Body System** NONE **Genital System** NONE **Hematopoietic System** 2 Lymph Node **Integumentary System** Skin 10

Musculoskeletal System

NONE

Nervous System

NONE

M ..Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 31

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:30

First Dose M/F: NA / NA

Lab: MBA

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

CAS Number: 35691-65-7

Species/Strain: Rat/F 344/N

F 344/N Rat Female MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
V VIII VVI ID	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	8
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 10

X ..Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

Experiment Number: 97003-05 P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Type: 90-DAY **Test Compound:** 1,2-Dibromo-2,4-dicyanobutane **Route: SKIN APPLICATION** CAS Number: 35691-65-7 Species/Strain: Rat/F 344/N DAY ON TEST F 344/N Rat Female 3 MG/KG 0 0 8 2 ANIMAL ID Ō 0 8 8 8 1 5 *TOTALS **Alimentary System** Liver Cardiovascular System NONE **Endocrine System** NONE **General Body System** NONE **Genital System** NONE **Hematopoietic System** NONE **Integumentary System** Skin **Musculoskeletal System** NONE

X .. Lesion present

Nervous System

NONE

I .. Insufficient tissue

M ..Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 33

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane CAS Number: 35691-65-7

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N

First Dose M/F: NA / NA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

Lab: MBA

F 344/N Rat Female MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
AMIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	8	8	8	8	8	8	8	8	8	9
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 10

X ..Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

Species/Strain: Rat/F 344/N

F 344/N Rat Female	DAY ON TEST	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	0 0 9	
2.0 MG/KG	ANIMAL ID	0 0 0 9 1	3 0 0 0 9 2	3 0 0 0 9 3	0 0 0 9 4	3 0 0 0 9 5	3 0 0 0 9 6	3 0 0 0 9 7	3 0 0 0 9 8	0 0 0 9 9	0 0 1 0	*TOTALS
Alimentary System	-						_				_	
Esophagus Intestine Large, Cecum Intestine Large, Colon Intestine Large, Rectum Intestine Small, Duodenum Intestine Small, Ileum Intestine Small, Jejunum Liver Pancreas Salivary Glands Stomach, Forestomach Stomach, Glandular Cardiovascular System										+ A A A A A + + A A + +		1 0 0 0 0 0 0 1 0 0
Blood Vessel										+		1
Heart Endocrine System										+		1
Adrenal Cortex Adrenal Medulla Islets, Pancreatic Parathyroid Gland										+ + A +		1 1 0 1

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

CAS Number: 35691-65-7

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA Lab: MBA

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N

F 344/N Rat Female 2.0 MG/KG	DAY ON TEST	0 0 9 3	0 0 9 3	0 0 9 3	0 0 9 3	0 0 9 3	0 0 9 3	0 0 9 3	0 0 9 3	0 0 9 1	0 0 9 3	
	ANIMAL ID	0 0 0 9 1	0 0 0 9 2	0 0 0 9 3	0 0 0 9 4	0 0 0 9 5	0 0 0 9 6	0 0 0 9 7	0 0 0 9 8	0 0 0 9 9	0 0 1 0	*TOTALS
Pituitary Gland										Α		0
Thyroid Gland										Α		0
General Body System												
NONE Genital System												
Clitoral Gland										Α		0
Ovary										Α		0
Uterus										Α		0
Hematopoietic System												
Bone Marrow										Α		0
Lymph Node					+							1
Lymph Node, Mandibular										М		0
Lymph Node, Mesenteric										Α		0
Spleen										Α		0
Thymus										Α		0
Integumentary System												
Mammary Gland										+		1
Skin		+	+	+	+	+	+	+	+	+	+	10
Musculoskeletal System												
Bone										+		1

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY
Route: SKIN APPLICATION

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Female 2.0 MG/KG

Species/Strain: Rat/F 344/N

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	1	3
V VIIIVAVI ID	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1
	9	9	9	9	9	9	9	9	9	0
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Nervous System											
Brain									+		1
Respiratory System											
Lung									+		1
Nose									+		1
Trachea									Α		0
Special Senses System											
Eye									Α		0
Urinary System											
Kidney									+		1
Urinary Bladder									+		1
SYSTEMIC LESIONS											
Multiple Organ	+	+	+	+	+	+	+	+	+	+	10

M ..Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

Experiment Number: 97003-05 P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Type: 90-DAY **Test Compound:** 1,2-Dibromo-2,4-dicyanobutane **Route: SKIN APPLICATION** CAS Number: 35691-65-7 Species/Strain: Rat/F 344/N DAY ON TEST F 344/N Rat Female 3 MG/KG ANIMAL ID Õ Ō 1 2 8 *TOTALS **Alimentary System** Mesentery Cardiovascular System NONE **Endocrine System** NONE **General Body System** NONE **Genital System** Ovary **Hematopoietic System** Lymph Node **Integumentary System**

Musculoskeletal System

NONE

Skin

Nervous System

NONE

M .. Missing tissue

A .. Autolysis precludes evaluation

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Route: SKIN APPLICATION

CAS Number: 35691-65-7

Species/Strain: Rat/F 344/N

Lab: MBA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

First Dose M/F: NA / NA

F 344/N Rat Female 6.0 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
V VIII VVI ID	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY **Route: SKIN APPLICATION** Species/Strain: Rat/F 344/N

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

First Dose M/F: NA / NA Lab: MBA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

F 344/	N Rat Female
18.0	MG/KG

Endocrine System Adrenal Cortex Adrenal Medulla Islets, Pancreatic

Parathyroid Gland

F 344/N Rat Female 18.0 MG/KG Alimentary System	DAY ON TEST ANIMAL ID	0 0 9 3 0 0 1 1	0 9 3 0 0 1 1 2	0 9 3 0 0 1 1 3	0 9 3 0 0 1 1 4	0 9 3 0 0 1 1 5	0 9 3 0 0 1 1 6	0 9 3 0 0 1 1 7	0 0 9 3 0 0 1 1 8	0 9 3 0 0 1 1 9	0 9 3 0 0 1 2 0	*TOTALS
Esophagus		+	+	+	_	_	_	_	+	+	+	10
Intestine Large, Cecum		+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon		+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum		+	+	+	+	+	+	+	+	+	+	10
Liver		+	+	+	+	+	+	+	+	+	+	10
Pancreas		+	+	+	+	+	+	+	+	+	+	10
Salivary Glands		+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	10
Cardiovascular System												
Blood Vessel		+	+	+	+	+	+	+	+	+	+	10
Heart		+	+	+	+	+	+	+	+	+	+	10
Endocrine System												
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla		+	+	М	+	+	+	+	+	+	+	9

M .. Missing tissue

10

8

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

CAS Number: 35691-65-7

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Female 18.0 MG/KG

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

DAY ON TEST		0	0	0	0	0	0	0	0	Λ
DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
AMIMAL ID	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	2
	1	2	3	4	5	6	7	8	9	0
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	М	+	+	+

*TOTALS

10

9

10

10

General Body System

Pituitary Gland

Thyroid Gland

NONE

Genital System

Clitoral Gland	+	+	M	M	+	+	+	+	M	+	7
Ovary	+	+	+	+	+	+	+	+	+	+	10
Uterus	+	+	+	+	+	+	+	+	+	+	10
Hematopoietic System											

Bone Marrow

Thymus

Lymph Node, Mandibular	М	М	М	М	М	М	+	М	+	М	2
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10

Integumentary System

Mammary Gland	+	+	+	+	+	+	+	+	+	+	10
Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Control		+									1

Musculoskeletal System

Bone 10

X ..Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Type: 90-DAY

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

CAS Number: 35691-65-7

F 344/N Rat Female 18.0 MG/KG	DAY ON TEST ANIMAL ID	0 9 3 0 0 1 1	0 9 3 0 0 1 1 2	0 9 3 0 0 1 1 3	0 9 3 0 0 1 1 4	0 9 3 0 0 1 1 5	0 9 3 0 0 1 1 6	0 9 3 0 0 1 1 7	0 9 3 0 0 1 1 8	0 9 3 0 0 1 1	0 9 3 0 0 1 2	*TOTALS
Nervous System												
Brain		+	+	+	+	+	+	+	+	+	+	10
Respiratory System												
Lung		+	+	+	+	+	+	+	+	+	+	10
Nose		+	+	+	+	+	+	+	+	+	+	10
Trachea		+	+	+	+	+	+	+	+	+	+	10
Special Senses System												
Eye		+	+	+	+	+	+	+	+	+	+	10
Urinary System												
Kidney		+	+	+	+	+	+	+	+	+	+	10
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	10
SYSTEMIC LESIONS												
Multiple Organ		+	+	+	+	+	+	+	+	+	+	10

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A .. Autolysis precludes evaluation

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female CONTROL SPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 **Time Report Requested:** 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female CONTROL SPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female 0.2MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 **Time Report Requested:** 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female 0.2MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I .. Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

DAY ON TEST

F 344/N Rat Female 0.6MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL **Test Compound:** 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7 First Dose M/F: NA / NA

Lab: MBA

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

DAY ON TEST

F 344/N Rat Female 0.6MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female 2.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female 2.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X ..Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL **Test Compound:** 1,2-Dibromo-2,4-dicyanobutane **CAS Number:** 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female 6.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I .. Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female 6.0MG/KGSPECIAL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ 0

I ..Insufficient tissue

M ..Missing tissueA ..Autolysis precludes evaluation

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^{+ ..} Tissue examined microscopically

X ..Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N P04: NEOPLASMS BY INDIVIDUAL ANIMAL Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014 Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

DAY ON TEST

F 344/N Rat Female 18MG/KG SPECIAL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

I ..Insufficient tissue

^{* ..}Total animals with tissue examined microscopically; Total animals with tumor

^{+ ..} Tissue examined microscopically

X .. Lesion present

Test Type: 90-DAY

Route: SKIN APPLICATION Species/Strain: Rat/F 344/N

DAY ON TEST

F 344/N Rat Female 18MG/KG SPECIAL

ANIMAL ID

*TOTALS

0

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

** END OF REPORT **

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:49:31

First Dose M/F: NA / NA

Lab: MBA

M .. Missing tissue

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